BEFORE THE ILLINOIS COMMERCE COMMISSION

Central Illinois Light Company d/b/a)	
AmerenCILCO,)	
Proposed general increase in rates for)	Docket No. 06-0070
delivery service.)	
Central Illinois Public Service Company)	
d/b/a AmerenCIPS,)	
Proposed general increase in rates for)	Docket No. 06-0071
delivery service.)	
Illinois Power Company d/b/a AmerenIP,)	
Proposed general increase in rates for)	Docket No. 06-0072 (consol.)
delivery service.)	

Direct Testimony of **Scott J. Rubin**

on Behalf of the People of the State of Illinois by Office of Illinois Attorney General

Introduction 1 2 Q. Please state your name and business address. 3 A. My name is Scott J. Rubin. My business address is 3 Lost Creek Drive, Selinsgrove, PA. By whom are you employed and in what capacity? 4 Q. 5 A. I am an independent consultant and an attorney. My practice is limited to matters 6 affecting the public utility industry. 7 Q. What is the purpose of your testimony in this case? 8 A. My testimony has two purposes. First, I explain how the presentation made by 9 AmerenCILCO, AmerenCIPS, and AmerenIP (collectively referred to as Ameren or 10 Companies) in this case is designed to hide the real impacts that would be felt by 11 Ameren's customers. Ameren's attempt to benchmark its proposed rates against rates 12 that no Ameren customer pays at the present time is seriously misleading. By so doing, 13 the Companies make it appear that their proposed rate increase is more reasonable, and 14 less harmful to customers, than is actually the case. Thus, the first purpose of my 15 testimony is to clarify the real impact of the Companies' proposals. 16 Second, my testimony focuses on a review of the cost of service study and 17 proposed residential rate design filed by Ameren. 18 What are your qualifications to provide this testimony in this case? Q. 19 A. I have testified as an expert witness before utility commissions or courts in the District of 20 Columbia and in the states of Arizona, Delaware, Kentucky, Illinois, Maine, Maryland, 21 New Jersey, New York, Ohio, Pennsylvania, and West Virginia. I also have testified as

an expert witness before two committees of the U.S. House of Representatives and one

22

Q.

A.

committee of the Pennsylvania House of Representatives. I also have served as a consultant to the Connecticut Department of Public Utility Control, several national utility trade associations, and state and local governments throughout the country. Prior to establishing my own consulting and law practice, I was employed by the Pennsylvania Office of Consumer Advocate (OCA) from 1983 through January 1994 in increasingly responsible positions. From 1990 until I left the OCA, I was one of two senior attorneys in that Office. Among my other responsibilities in that position, I had a major role in setting the OCA's policy positions on water and electric matters. In addition, I was responsible for supervising the technical staff of that Office. I also testified as an expert witness for that Office on rate design and cost of service issues.

Throughout my career, I developed substantial expertise in matters relating to the economic regulation of public utilities. I have published articles, contributed to books, written speeches, and delivered numerous presentations, on both the national and state level, relating to regulatory issues. I have attended numerous continuing education courses involving the utility industry. I also periodically participate as a faculty member in utility-related educational programs for the Institute for Public Utilities at Michigan State University, the American Water Works Association, and the Pennsylvania Bar Institute. Appendix A to this testimony is my curriculum vitae.

Do you have any experience that is particularly relevant to the issues in this case?

Yes, I do. I have testified on numerous occasions as a rate design and cost of service expert. I also have worked as a consultant to local government entities on rate design issues – both to assist government-owned utilities in designing rates and to help government agencies obtain reasonable rates from their utility. I also served on the

A.

editorial committee for the preparation of the major rate design manual for the water utility industry, the American Water Works Association's Manual M1: *Principles of Water Rates, Fees, and Charges*, published in 2000. In addition, during 2004 I provided technical assistance, training, and analysis for the staff of the Connecticut Department of Public Utility Control on rate design, cost allocation, and related issues.

My most recent rate design work involving energy utilities was for the Office of Illinois Attorney General (AG) in the Commonwealth Edison Company DST rate proceeding (ICC Docket No. 05-0597). I also recently have worked on cases for the Office of the Ohio Consumers' Counsel (involving a comprehensive review of the universal service charge rate design methodology for all electric utilities in Ohio) and the Pennsylvania Office of Consumer Advocate (to review the cost of service and rate design recommendations in a complex rate proceeding involving Aqua Pennsylvania and its more than 50 separate rate areas within Pennsylvania).

59 Summary

Q. What is the primary focus of your direct testimony?

My testimony focuses on Ameren's proposal to consolidate all residential customers into a single customer class, including establishing common customer and meter charges throughout their service areas in Illinois. At the present time, residential charges are different for each of the Ameren utilities, and there are differences in the structure of the rates themselves. For example, some companies have separate rates for space heating or multi-family customers, while others do not. In addition, the Companies propose to eliminate the seasonal rates that are contained in their existing, bundled tariffs.

		Eliminating lower rates in the non-summer months will have a devastating impact on the
59		Companies' residential space heating customers. My testimony will evaluate the impact
70		on customers of the Companies' proposals, including its voluntary rate cap for 2007.
71	Q.	As part of your work, did you review the testimony and exhibits of any Ameren
72		witnesses?
73	A.	Yes. I reviewed the testimony and accompanying exhibits of Ameren witnesses Cisel
74		(Ameren Exh. 1.0), Cooper (Ameren Exh. 8.0), DiFani (Ameren Exh. 9.0), and Jones
75		(Ameren Exh. 10.0). I will discuss portions of their testimonies and exhibits as they
76		relate to the Companies' proposals for setting rates for the residential class of customers.
77		Of course, I also reviewed other exhibits that are part of the filing and numerous
78		responses to discovery requests that were provided by these witnesses and others.
79	Q.	Please summarize your conclusions.
30	A.	My conclusion can be summarized as follows:
30 31 32 33 34 35	A.	 My conclusion can be summarized as follows: The Companies' statements and schedules concerning the impact of its proposed increase on residential customers are seriously misleading because they are based on a fictitious blend of unbundled present rates for distribution service – rates that no residential customer currently pays – and hypothetical forward-looking transmission and energy charges.
31 32 33 34	A.	 The Companies' statements and schedules concerning the impact of its proposed increase on residential customers are seriously misleading because they are based on a fictitious blend of unbundled present rates for distribution service – rates that no residential customer currently pays –
331 332 333 334 335 336 337 338	A.	 The Companies' statements and schedules concerning the impact of its proposed increase on residential customers are seriously misleading because they are based on a fictitious blend of unbundled present rates for distribution service – rates that no residential customer currently pays – and hypothetical forward-looking transmission and energy charges. An accurate comparison of present (bundled) and proposed (unbundled distribution plus hypothetical transmission and energy) rates shows that the typical residential customer will face annual increases of between 20%

95 43%. At AmerenIP, the phase-in would result in an increase of 35% in 2007 instead of 41% under the Companies' proposal. 96 97 The phase-in proposal's impact on heating customers also would be very 98 modest. In all of the Ameren Illinois companies, the annual bill increases for 2007 – even after applying the phase-in – would be in excess of 40% 99 for heating customers. 100 **Companies' Approach to Determining Customer Impact** 101 102 Did Ameren present any information about the impact of its proposed rates on Q. 103 customers? 104 Yes. Ameren's President, Mr. Cisel states: "In comparison to current bundled rates, 105 AmerenCILCO is proposing an overall increase of 9.6%; AmerenCIPS is proposing an overall increase of 2%; and AmerenIP is proposing an overall increase of 8.9%." 106 107 Ameren Exh. 1.0, lines 170-172. Mr. Cisel then states that these percentages represent 108 the impact of the distribution rate increase on the total bills (including generation and transmission) of customers. 109 110 Mr. Jones, from Ameren's regulatory group, provides further detail concerning 111 the impact of the Companies' proposal. He states: "the typical residential customer is 112 expected to see an increase of 16%, 0.4%, 8.1%, and 16.1% for AmerenIP, AmerenCIPS, AmerenCIPS-ME, and AmerenCILCO, respectively." Ameren Exh. 10.0, lines 672-676. 113 114 He then notes that if the Companies' first-year rate cap is adopted, the increases for AmerenIP and AmerenCILCO would be limited to 9.8% and 10.3%, respectively. 115 116 Q. Are the Ameren witnesses correct that the typical residential customer would face 117 an increase of 10% or less if all of the Companies' proposals were adopted? 118 No, they are not correct. The figures calculated by the Companies are seriously A. 119 misleading and grossly understate the real impact on customers. When an "apples to

apples" comparison is conducted, many customers will face increases in their electric bills of more than 50%, with some seeing increases approaching 100%.

Q. Why are Ameren's numbers so misleading?

A.

A.

The fundamental problem with Ameren's comparison is that it does not use their existing, bundled service rates. Nearly all Ameren residential customers are currently receiving bundled service under these rates, so it is extremely important that these rates serve as the starting point for any comparison.

Instead of using its real-world existing rates, however, Ameren's comparisons are based on what it terms "rebundled" rates. These rates are a mixture of Ameren's existing rates for <u>unbundled</u> distribution service and Ameren's estimate of future charges for energy supply and transmission. These fictitious rates represent a hybrid rate that no residential customer is currently paying and they do not accurately reflect the true impact of Ameren's proposals in this case.

Q. Can you be more specific about these differences?

Yes. I have prepared several exhibits to illustrate the problem. AG Exhibit 2.1 shows existing bundled rates for each Ameren company, the artificially constructed fictitious hybrid rates that Ameren uses for its comparisons, and Ameren's proposed rebundled rate (consisting of unbundled distribution rates and hypothetical transmission and energy supply charges). Just by examining the pages in AG Exhibit 2.1, it is clear that moving from existing bundled rates to rebundled rates will have a major impact on customers' bills. At AmerenCILCO, for example, the existing customer and meter charge is \$3.52. The proposed rebundled customer and meter charge more than triples to \$10.93.

142 Similarly, at that same company, there is currently a bundled rate of 3.521 cents per 143 KWH for a significant portion of consumption for space-heating customers. The lowest 144 winter rate would more than double, under the Companies' proposal, to 7.1226 cents per 145 KWH (total of charges for distribution, transmission, and winter energy supply over 800 146 KWH). 147 Q. Looking at differences in tariffed rates can be misleading. Have you determined the 148 impact of these changes on a typical residential customer? 149 Yes, I have analyzed the impact of the Companies' proposals on the typical residential, 150 non-heating customer who would move from bundled service to the Companies' 151 proposed rebundled service on 1/1/2007. I prepared AG Exhibit 2.2 to calculate the annual bill for the median (50th percentile) residential customer. The median residential 152 153 customer varies among the Ameren companies, ranging from approximately 8,100 KWH 154 per year at AmerenIP to approximately 9,850 KWH per year at AmerenCIPS-ME. In 155 order to perform that comparison using Ameren's rates, which have seasonal differences, 156 I assumed the median consumption level in each month. For example, for CILCO the 157 monthly consumption levels range from 550 KWH in April and May to 850 KWH in 158 January, July, and August. (I determined the medians from the Companies' summary bill 159 frequency analyses, provided in response to AG 2-13.) 160 Q. What do you conclude from AG Exhibit 2.2? 161 A. AG Exhibit 2.2 shows that the real-world impact of Ameren's proposal would result in 162 the following increases over current rates in electric bills for typical residential

163

customers:

164		• AmerenCILCO: 43% increase
165		• AmerenCIPS: 20% increase
166		• AmerenCIPS-ME: 22% increase
167		• AmerenIP: 42% increase
168		These are dramatically higher than the increases that Ameren's witnesses refer to in their
169		testimony.
170	Q.	Earlier, you testified that some customers would face increases approaching 100%.
171		Why doesn't AG Exhibit 2.2 show any increases of that magnitude?
172	A.	AG Exhibit 2.2 is constructed to be similar to Ameren's Schedule 10.8, which uses a
173		typical residential customer. The typical Ameren customer does not use electricity for
174		space heating and, thus, uses more electricity in the summer than in the winter.
175		Customers who use electricity for space heating would face rate increases approaching
176		100% during the winter months, as I describe below.
177	Q.	Have you performed an analysis to show the impact of Ameren's proposals on a
178		broader range of customers than just the average customer?
179	A.	Yes, I have constructed two customer profiles to examine a broader range of impacts.
180		AG Exhibit 2.3 shows a hypothetical low-consumption customer who uses 400 KWH per
181		month in non-summer months and 600 KWH per month during the summer. This might
182		represent someone living in an apartment or condominium, or perhaps one or two people
183		living in a small, single-family house that is unoccupied most of the day.
184		AG Exhibit 2.4 shows a hypothetical space-heating customer who uses 2,000
185		KWH per month during the primary heating months (November through February),

A.

A.

1,500 KWH per month during the shoulder months (October and March), 1,000 KWH per month during the summer months (June through August), and 800 KWH in the remaining months.

Q. What do you conclude about the impact on low-use customers from AG Exhibit 2.3?

I conclude that under the Companies' proposed rates (without the phase-in), low-use customers' bills would increase by approximately the same percentage as the median, or typical, customer. Using my hypothetical low-use customer, the annual increases would range from 22% at AmerenCIPS-ME to 48% at AmerenCILCO. This is reasonably similar to the increases for a typical customer which would be 22% at AmerenCIPS-ME and 43% at AmerenCILCO.

Q. What do you conclude about the impact on heating customers from AG Exhibit 2.4?

I conclude that under the Companies' proposed rates (without the phase-in), bills for heating customers would increase by significantly more than the median, or typical, customer's bills. Using my hypothetical heating customer, the annual increases would range from 40% at AmerenCIPS to 57% at AmerenIP. In contrast, the increases for a typical customer would be 20% at AmerenCIPS and 42% at AmerenIP.

Stated differently, the annual increases for heating customers would be about twice as high at AmerenCIPS and AmerenCIPS-ME than the increases for a typical customer at those utilities. At AmerenCIPS the annual bill for a heating customer would increase 40%, compared to the typical increase of 20%. At AmerenCIPS-ME the heating customer's bill would increase 44% compared to the typical increase of 22%.

207	Q.	Do the annual bill increases tell the whole story for heating customers?
208	A.	No, looking at the annual bill increases actually masks the devastating impact of the
209		Companies' proposal on heating customers during the heating season. During a heating
210		month, the bills would increase by a much higher percentage than the annual increase.
211		Specifically, if we use 2,000 KWH as representing a heating customer's consumption
212		during a winter month, winter bills would increase by:
213		AmerenCILCO: 62% increase
214		• AmerenCIPS: 60% increase
215		• AmerenCIPS-ME: 82% increase
216		AmerenIP: 78% increase
217	Q.	Do you know how many Ameren customers are represented by your hypothetical
218		examples?
219	A.	No, I do not. We asked Ameren to provide bill frequency analyses separately for heating
220		and non-heating customers, and separately for single-family and multi-family customers
221		at AmerenIP (where the existing rates make such a distinction), but the Companies
222		refused to provide that information (response to AG 4.2). I have constructed reasonable
223		usage patterns for these types of customers, but I cannot say with precision how many
224		customers fall into these categories. I reserve the right to supplement this testimony if
225		such information becomes available.
226		I can, however, provide a reasonable estimate of the percentage of customers that
227		probably look like my examples. Approximately 20% to 30% of Ameren's bills reflect
228		consumption of 400 KWH or less during non-summer months and consumption of 600
229		KWH or less during the summer, a usage pattern typical of a low-use customer. The
229		KWH of less during the summer, a usage pattern typical of a low-use customer. The

Q.

A.

higher end of the range – approaching one-third of customers – would apply in AmerenIP. The other three Illinois utilities would appear to have roughly 20% to 25% of their customers with characteristics similar to my hypothetical low-use customer. It is reasonable to infer, therefore, that approximately one out of every four of Ameren's Illinois customers would face bill impacts similar to what I show in AG Exhibit 2.3 for low-use customers.

For heating customers, at AmerenCILCO and AmerenIP approximately 10% of the winter bills are for consumption of 2,000 KWH or more, while at CIPS and CIPS-ME approximately 15% of winter bills reflect consumption at that level. It appears, therefore, that it is reasonable to assume that at least 10% of the Companies' Illinois customers would bear impacts similar to those shown in AG Exhibit 2.4 for heating customers.

In AG Exhibits 2.1 through 2.4, what have you assumed for energy prices?

I used the same assumption that Ameren used in preparing its analyses: a wholesale energy price of approximately \$55 per MWH. Obviously, if wholesale energy prices are higher than \$55 per MWH in 2007 – which appears likely given current energy market conditions – then customers' bills would increase by an even larger amount than I show in AG Exhibits 2.2 through 2.4.

- Q. Have you reviewed Ameren's proposal to forego a portion of its rate increase during 2007, in order to mitigate the increases for residential customers?
- 249 A. Yes, I have reviewed the proposal, as described by Mr. Jones (Ameren Exh. 10.0, lines 634-668 and Ameren Exh. 10.7).

251	Q.	Does that proposal adequately address your concerns with the impact of the rate
252		increase on residential customers?
253	A.	No, it does not. There are three significant problems with the Companies' proposal.
254		First, the Companies' phase-in proposal does very little to mitigate the impact of its
255		proposed rate changes. I have prepared AG Exhibits 2.5, 2.6, and 2.7 to illustrate this
256		fact. These exhibits are identical to AG Exhibits 2.2, 2.3, and 2.4, except that they use
257		the Companies' phase-in rates for AmerenCILCO and AmerenIP (the Companies do not
258		propose any phase-in for AmerenCIPS or AmerenCIPS-ME).
259		AG Exhibit 2.5 shows the impact of the phase-in proposal on the median
260		customer at AmerenCILCO (page 1) and AmerenIP (page 2). At AmerenCILCO, the
261		median customer's annual increase would be 37% under the phase-in, instead of 43%
262		without the phase-in (from AG Exhibit 2.2). At AmerenIP, the median customer's annual
263		increase would be 35% with the phase-in and 42% without the phase-in.
-00		in the plant in th
264		Comparing AG Exhibits 2.3 and 2.6 shows that the impact of the phase-in on low-
265		use customers also would be relatively minor. AmerenCILCO would go from a 48%
266		increase to a 43% increase, while AmerenIP would go from a 40% increase to a 34%
267		increase.
268		Similarly, comparing AG Exhibits 2.4 and 2.7 shows that most of the
269		extraordinarily high increases would remain for heating customers. AmerenCILCO

heating customers would see their annual increase go from 51% down to 43%.

AmerenIP heating customers' increases would go from 57% down to 48%.

270

271

A.

While any reduction in bill impacts is welcome, I consider the Companies' phasein proposal to be woefully inadequate to deal with increases of the magnitude they are
proposing. In addition, the proposal does nothing to help heating customers at
AmerenCIPS and AmerenCIPS-ME, who would bear increases in excess of 40% under
the Companies' proposed rates.

Q. What are your other two concerns with the Companies' phase-in proposal?

My second concern is that the proposal would be in effect for only one year. Beginning in January 2008, the rates would go up to the full level established in this case. In order for customers to absorb rate increases of the magnitude proposed by the Companies – particularly the increases for space-heating customers – the transition period should be considerably longer than one year. Indeed, space-heating customers may need more than one year to save or raise the money to replace their heating system with one that would be more economical.

Third, because of the severe impact on heating customers, I also do not think the rate should be changed in the middle of the heating season. Any phase-in should occur during a non-heating month so that heating customers can better anticipate the change, and so that they do not suddenly receive a significantly higher bill in the middle of the heating season. If the Commission adopts some type of phase-in plan, I would suggest either an April or October date to implement any significant rate changes.

291	Q.	Why does the Companies' phase-in proposal deal with such a small portion of the
292		total rate increase?
293	A.	The Companies constructed their phase-in plan based on the fictitious hybrid rates I
294		discussed earlier - rates that essentially no residential customer pays. In contrast, my
295		analysis is based on the real bills that customers pay at the present time. By ignoring real
296		customer bills, the Companies have developed a phase-in proposal that is not responsive
297		to customers' needs and does very little to mitigate the extreme impacts that would occur
298		by charging the Companies' proposed rates.
299	Q.	What do you recommend?
300	A.	I recommend that in determining the impact on residential customers from any rate
301		changes the Commission might implement in this case, the Commission should evaluate
302		the following:
303 304 305		 The change that customers would see on their actual bills; that is, compare any new rates to the existing, bundled rates that essentially all residential customers are paying;
306 307		• The change that would be seen by a typical (median) customer, with the characteristics I show on AG Exhibit 2.2;
308 309		• The change that would be seen by a low-use customer, with the characteristics I show on AG Exhibit 2.3; and
310 311		• The change that would be seen by a space-heating customer, with the characteristics I show on AG Exhibit 2.4.
312		In addition, I recommend that any significant rate changes that affect space-
313		heating customers should be implemented during a non-heating, non-cooling month (such
314		as April or October), so that customers have an opportunity to adjust their consumption
315		patterns to any such changes. It also will be important to provide space-heating

customers with accurate information about any rate changes as much in advance as possible, so that they have time to evaluate the costs and benefits of replacing their heating system with one that will be more economical than electric space heating,

Q. Does this conclude your direct testimony?

Yes, it does.

Appendix A

Scott J. Rubin

Attorney + Consultant 3 Lost Creek Drive • Selinsgrove, PA 17870

Current Position

Public Utility Attorney and Consultant, Selinsgrove, PA. 1994 to present. I provide legal, consulting, and expert witness services to various organizations interested in the regulation of public utilities.

Previous Positions

Lecturer in Computer Science, Susquehanna University, Selinsgrove, PA. 1993 to 2000.

Senior Assistant Consumer Advocate, Office of Consumer Advocate, Harrisburg, PA. 1990 to 1994. I supervised the administrative and technical staff and shared with one other senior attorney the supervision of a legal staff of 14 attorneys.

Assistant Consumer Advocate, Office of Consumer Advocate, Harrisburg, PA. 1983 to 1990.

Associate, Laws and Staruch, Harrisburg, PA. 1981 to 1983.

Law Clerk, U.S. Environmental Protection Agency, Washington, DC. 1980 to 1981.

Research Assistant, Rockville Consulting Group, Washington, DC. 1979.

Current Professional Activities

Member, American Bar Association, Public Utility Law Section.

Member, American Water Works Association.

Admitted to practice law before the Supreme Court of Pennsylvania, the New York State Court of Appeals, the United States District Court for the Middle District of Pennsylvania, the United States Court of Appeals for the Third Circuit, and the Supreme Court of the United States.

Previous Professional Activities

Member, American Water Works Association, Rates and Charges Subcommittee, 1998-2001.

- Member, Federal Advisory Committee on Disinfectants and Disinfection By-Products in Drinking Water, U.S. Environmental Protection Agency, Washington, DC. 1992 to 1994.
- Chair, Water Committee, National Association of State Utility Consumer Advocates, Washington, DC. 1990 to 1994; member of committee from 1988 to 1990.
- Member, Board of Directors, Pennsylvania Energy Development Authority, Harrisburg, PA. 1990 to 1994.
- Member, Small Water Systems Advisory Committee, Pennsylvania Department of Environmental Resources, Harrisburg, PA. 1990 to 1992.
- Member, Ad Hoc Committee on Emissions Control and Acid Rain Compliance, National Association of State Utility Consumer Advocates, 1991.

Member, Nitrogen Oxides Subcommittee of the Acid Rain Advisory Committee, U.S. Environmental Protection Agency, Washington DC. 1991.

Education

- J.D. with Honors, George Washington University, Washington, DC. 1981.
- B.A. with Distinction in Political Science, Pennsylvania State University, University Park, PA. 1978.

Publications and Presentations

- "Quality of Service Issues," a speech to the Pennsylvania Public Utility Commission Consumer Conference, State College, PA. 1988.
- K.L. Pape and S.J. Rubin, "Current Developments in Water Utility Law," in *Pennsylvania Public Utility Law* (Pennsylvania Bar Institute). 1990.
- Presentation on Water Utility Holding Companies to the Annual Meeting of the National Association of State Utility Consumer Advocates, Orlando, FL. 1990.
- "How the OCA Approaches Quality of Service Issues," a speech to the Pennsylvania Chapter of the National Association of Water Companies. 1991.
- Presentation on the Safe Drinking Water Act to the Mid-Year Meeting of the National Association of State Utility Consumer Advocates, Seattle, WA. 1991.
- "A Consumer Advocate's View of Federal Pre-emption in Electric Utility Cases," a speech to the Pennsylvania Public Utility Commission Electricity Conference. 1991.
- Workshop on Safe Drinking Water Act Compliance Issues at the Mid-Year Meeting of the National Association of State Utility Consumer Advocates, Washington, DC. 1992.
- Formal Discussant, Regional Acid Rain Workshop, U.S. Environmental Protection Agency and National Regulatory Research Institute, Charlotte, NC. 1992.
- S.J. Rubin and S.P. O'Neal, "A Quantitative Assessment of the Viability of Small Water Systems in Pennsylvania," *Proceedings of the Eighth NARUC Biennial Regulatory Information Conference*, National Regulatory Research Institute (Columbus, OH 1992), IV:79-97.
- "The OCA's Concerns About Drinking Water," a speech to the Pennsylvania Public Utility Commission Water Conference. 1992.
- Member, Technical Horizons Panel, Annual Meeting of the National Association of Water Companies, Hilton Head, SC. 1992.
- M.D. Klein and S.J. Rubin, "Water and Sewer -- Update on Clean Streams, Safe Drinking Water, Waste Disposal and Pennvest," *Pennsylvania Public Utility Law Conference* (Pennsylvania Bar Institute). 1992.
- Presentation on Small Water System Viability to the Technical Assistance Center for Small Water Companies, Pa. Department of Environmental Resources, Harrisburg, PA. 1993

- "The Results Through a Public Service Commission Lens," speaker and participant in panel discussion at Symposium: "Impact of EPA's Allowance Auction," Washington, DC, sponsored by AER*X. 1993.
- "The Hottest Legislative Issue of Today -- Reauthorization of the Safe Drinking Water Act," speaker and participant in panel discussion at the Annual Conference of the American Water Works Association, San Antonio, TX. 1993.
- "Water Service in the Year 2000," a speech to the Conference: "Utilities and Public Policy III: The Challenges of Change," sponsored by the Pennsylvania Public Utility Commission and the Pennsylvania State University, University Park, PA. 1993.
- "Government Regulation of the Drinking Water Supply: Is it Properly Focused?," speaker and participant in panel discussion at the National Consumers League's Forum on Drinking Water Safety and Quality, Washington, DC. 1993. Reprinted in *Rural Water*, Vol. 15 No. 1 (Spring 1994), pages 13-16.
- "Telephone Penetration Rates for Renters in Pennsylvania," a study prepared for the Pennsylvania Office of Consumer Advocate. 1993.
- "Zealous Advocacy, Ethical Limitations and Considerations," participant in panel discussion at "Continuing Legal Education in Ethics for Pennsylvania Lawyers," sponsored by the Office of General Counsel, Commonwealth of Pennsylvania, State College, PA. 1993.
- "Serving the Customer," participant in panel discussion at the Annual Conference of the National Association of Water Companies, Williamsburg, VA. 1993.
- "A Simple, Inexpensive, Quantitative Method to Assess the Viability of Small Water Systems," a speech to the Water Supply Symposium, New York Section of the American Water Works Association, Syracuse, NY. 1993.
- S.J. Rubin, "Are Water Rates Becoming Unaffordable?," *Journal American Water Works Association*, Vol. 86, No. 2 (February 1994), pages 79-86.
- "Why Water Rates Will Double (If We're Lucky): Federal Drinking Water Policy and Its Effect on New England," a briefing for the New England Conference of Public Utilities Commissioners, Andover, MA. 1994.
- "Are Water Rates Becoming Unaffordable?," a speech to the Legislative and Regulatory Conference, Association of Metropolitan Water Agencies, Washington, DC. 1994.
- "Relationships: Drinking Water, Health, Risk and Affordability," speaker and participant in panel discussion at the Annual Meeting of the Southeastern Association of Regulatory Commissioners, Charleston, SC. 1994.
- "Small System Viability: Assessment Methods and Implementation Issues," speaker and participant in panel discussion at the Annual Conference of the American Water Works Association, New York, NY. 1994.

- S.J. Rubin, "How much should we spend to save a life?," *Seattle Journal of Commerce*, August 18, 1994 (Protecting the Environment Supplement), pages B-4 to B-5.
- S. Rubin, S. Bernow, M. Fulmer, J. Goldstein, and I. Peters, *An Evaluation of Kentucky-American Water Company's Long-Range Planning*, prepared for the Utility and Rate Intervention Division, Kentucky Office of the Attorney General (Tellus Institute 1994).
- S.J. Rubin, "Small System Monitoring: What Does It Mean?," *Impacts of Monitoring for Phase II/V Drinking Water Regulations on Rural and Small Communities* (National Rural Water Association 1994), pages 6-12.
- "Surviving the Safe Drinking Water Act," speaker at the Annual Meeting of the National Association of State Utility Consumer Advocates, Reno, NV. 1994.
- "Safe Drinking Water Act Compliance -- Ratemaking Implications," speaker at the National Conference of Regulatory Attorneys, Scottsdale, AZ. 1995. Reprinted in *Water*, Vol. 36, No. 2 (Summer 1995), pages 28-29.
- S.J. Rubin, "Water: Why Isn't it Free? The Case of Small Utilities in Pennsylvania," *Utilities, Consumers & Public Policy: Issues of Quality, Affordability, and Competition, Proceedings of the Fourth Utilities, Consumers and Public Policy Conference* (Pennsylvania State University 1995), pages 177-183.
- S.J. Rubin, "Water Rates: An Affordable Housing Issue?," *Home Energy*, Vol. 12 No. 4 (July/August 1995), page 37.
- Speaker and participant in the Water Policy Forum, sponsored by the National Association of Water Companies, Naples, FL. 1995.
- Participant in panel discussion on "The Efficient and Effective Maintenance and Delivery of Potable Water at Affordable Rates to the People of New Jersey," at The New Advocacy: Protecting Consumers in the Emerging Era of Utility Competition, a conference sponsored by the New Jersey Division of the Ratepayer Advocate, Newark, NJ. 1995.
- J.E. Cromwell III, and S.J. Rubin, *Development of Benchmark Measures for Viability Assessment* (Pa. Department of Environmental Protection 1995).
- S. Rubin, "A Nationwide Practice from a Small Town in Pa.," *Lawyers & the Internet a Supplement to the Legal Intelligencer and Pa. Law Weekly* (February 12, 1996), page S6.
- "Changing Customers' Expectations in the Water Industry," speaker at the Mid-America Regulatory Commissioners Conference, Chicago, IL. 1996, reprinted in *Water* Vol. 37 No. 3 (Winter 1997), pages 12-14...
- "Recent Federal Legislation Affecting Drinking Water Utilities," speaker at Pennsylvania Public Utility Law Conference, Pennsylvania Bar Institute, Hershey, PA. 1996.
- "Clean Water at Affordable Rates: A Ratepayers Conference," moderator at symposium sponsored by the New Jersey Division of Ratepayer Advocate, Trenton, NJ. 1996.

- "Water Workshop: How New Laws Will Affect the Economic Regulation of the Water Industry," speaker at the Annual Meeting of the National Association of State Utility Consumer Advocates, San Francisco, CA. 1996.
- E.T. Castillo, S.J. Rubin, S.K. Keefe, and R.S. Raucher, "Restructuring Small Systems," *Journal American Water Works Association*, Vol. 89, No. 1 (January 1997), pages 65-74.
- J.E. Cromwell III, S.J. Rubin, F.C. Marrocco, and M.E. Leevan, "Business Planning for Small System Capacity Development," *Journal American Water Works Association*, Vol. 89, No. 1 (January 1997), pages 47-57.
- "Capacity Development More than Viability Under a New Name," speaker at National Association of Regulatory Utility Commissioners Winter Meetings, Washington, DC. 1997.
- E. Castillo, S.K. Keefe, R.S. Raucher, and S.J. Rubin, *Small System Restructuring to Facilitate SDWA Compliance: An Analysis of Potential Feasibility* (AWWA Research Foundation, 1997).
- H. Himmelberger, et al., Capacity Development Strategy Report for the Texas Natural Resource Conservation Commission (Aug. 1997).
- Briefing on Issues Affecting the Water Utility Industry, Annual Meeting of the National Association of State Utility Consumer Advocates, Boston, MA. 1997.
- "Capacity Development in the Water Industry," speaker at the Annual Meeting of the National Association of Regulatory Utility Commissioners, Boston, MA. 1997.
- "The Ticking Bomb: Competitive Electric Metering, Billing, and Collection," speaker at the Annual Meeting of the National Association of State Utility Consumer Advocates, Boston, MA. 1997.
- Scott J. Rubin, "A Nationwide Look at the Affordability of Water Service," *Proceedings of the 1998 Annual Conference of the American Water Works Association*, Water Research, Vol. C, No. 3, pages 113-129 (American Water Works Association, 1998).
- Scott J. Rubin, "30 Technology Tips in 30 Minutes," *Pennsylvania Public Utility Law Conference*, Vol. I, pages 101-110 (Pa. Bar Institute, 1998).
- Scott J. Rubin, "Effects of Electric and Gas Deregulation on the Water Industry," *Pennsylvania Public Utility Law Conference*, Vol. I, pages 139-146 (Pa. Bar Institute, 1998).
- Scott J. Rubin, *The Challenges and Changing Mission of Utility Consumer Advocates* (American Association of Retired Persons, 1999).
- "Consumer Advocacy for the Future," speaker at the Age of Awareness Conference, Changes and Choices: Utilities in the New Millennium, Carlisle, PA. 1999.
- Keynote Address, \$1 Energy Fund, Inc., Annual Membership Meeting, Monroeville, PA. 1999.
- Scott J. Rubin, "Assessing the Effect of the Proposed Radon Rule on the Affordability of Water Service," prepared for the American Water Works Association. 1999.

- Scott J. Rubin and Janice A. Beecher, The Impacts of Electric Restructuring on the Water and Wastewater Industry, *Proceedings of the Small Drinking Water and Wastewater Systems International Symposium and Technology Expo* (Phoenix, AZ 2000), pp. 66-75.
- American Water Works Association, *Principles of Water Rates, Fees, and Charges, Manual M1 Fifth Edition* (AWWA 2000), Member, Editorial Committee.
- Janice A. Beecher and Scott J. Rubin, presentation on "Special Topics in Rate Design: Affordability" at the Annual Conference and Exhibition of the American Water Works Association, Denver, CO. 2000.
- Scott J. Rubin, "The Future of Drinking Water Regulation," a speech at the Annual Conference and Exhibition of the American Water Works Association, Denver, CO. 2000.
- Janice A. Beecher and Scott J. Rubin, "Deregulation Impacts and Opportunities," a presentation at the Annual Conference and Exhibition of the American Water Works Association, Denver, CO. 2000.
- Scott J. Rubin, "Estimating the Effect of Different Arsenic Maximum Contaminant Levels on the Affordability of Water Service," prepared for the American Water Works Association. 2000.
- Janice A. Beecher and Scott J. Rubin, *Deregulation! Impacts on the Water Industry*, American Water Works Association Research Foundation, Denver, CO. 2000.
- Scott J. Rubin, Methods for Assessing, Evaluating, and Assisting Small Water Systems, NARUC Annual Regulatory Studies Program, East Lansing, MI. 2000.
- Scott J. Rubin, Consumer Issues in the Water Industry, NARUC Annual Regulatory Studies Program, East Lansing, MI. 2000.
- "Be Utility Wise in a Restructured Utility Industry," Keynote Address at Be UtilityWise Conference, Pittsburgh, PA. 2000.
- Scott J. Rubin, Jason D. Sharp, and Todd S. Stewart, "The Wired Administrative Lawyer," 5th Annual Administrative Law Symposium, Pennsylvania Bar Institute, Harrisburg, PA. 2000.
- Scott J. Rubin, "Current Developments in the Water Industry," *Pennsylvania Public Utility Law Conference*, Pennsylvania Bar Institute, Harrisburg, PA. 2000.
- Scott J. Rubin, "Viewpoint: Change Sickening Attitudes," Engineering News-Record, Dec. 18, 2000.
- Janice A. Beecher and Scott J. Rubin, "Ten Practices of Highly Effective Water Utilities," *Opflow*, April 2001, pp. 1, 6-7, 16; reprinted in *Water and Wastes Digest*, December 2004, pp. 22-25.
- Scott J. Rubin, "Pennsylvania Utilities: How Are Consumers, Workers, and Corporations Faring in the Deregulated Electricity, Gas, and Telephone Industries?" Keystone Research Center. 2001.
- Scott J. Rubin, "Guest Perspective: A First Look at the Impact of Electric Deregulation on Pennsylvania," *LEAP Letter*, May-June 2001, pp. 2-3.

- Scott J. Rubin, Consumer Protection in the Water Industry, NARUC Annual Regulatory Studies Program, East Lansing, MI. 2001.
- Scott J. Rubin, Impacts of Deregulation on the Water Industry, NARUC Annual Regulatory Studies Program, East Lansing, MI. 2001.
- Scott J. Rubin, "Economic Characteristics of Small Systems," *Critical Issues in Setting Regulatory Standards*, National Rural Water Association, 2001, pp. 7-22.
- Scott J. Rubin, "Affordability of Water Service," *Critical Issues in Setting Regulatory Standards*, National Rural Water Association, 2001, pp. 23-42.
- Scott J. Rubin, "Criteria to Assess the Affordability of Water Service," White Paper, National Rural Water Association, 2001.
- Scott J. Rubin, Providing Affordable Water Service to Low-Income Families, presentation to Portland Water Bureau, Portland, OR. 2001.
- Scott J. Rubin, Issues Relating to the Affordability and Sustainability of Rates for Water Service, presentation to the Water Utility Council of the American Water Works Association, New Orleans, LA. 2002.
- Scott J. Rubin, The Utility Industries Compared Water, NARUC Annual Regulatory Studies Program, East Lansing, MI. 2002.
- Scott J. Rubin, Legal Perspective on Water Regulation, NARUC Annual Regulatory Studies Program, East Lansing, MI. 2002.
- Scott J. Rubin, Regulatory Options for Water Utilities, NARUC Annual Regulatory Studies Program, East Lansing, MI. 2002.
- Scott J. Rubin, Overview of Small Water System Consolidation, presentation to National Drinking Water Advisory Council Small Systems Affordability Working Group, Washington, DC. 2002.
- Scott J. Rubin, Defining Affordability and Low-Income Household Tradeoffs, presentation to National Drinking Water Advisory Council Small Systems Affordability Working Group, Washington, DC. 2002.
- Scott J. Rubin, "Thinking Outside the Hearing Room," *Pennsylvania Public Utility Law Conference*, Pennsylvania Bar Institute, Harrisburg, PA. 2002.
- Scott J. Rubin, "Update of Affordability Database," White Paper, National Rural Water Association. 2003.
- Scott J. Rubin, *Understanding Telephone Penetration in Pennsylvania*, Council on Utility Choice, Harrisburg, PA. 2003.
- Scott J. Rubin, *The Cost of Water and Wastewater Service in the United States*, National Rural Water Association, 2003.

- Scott J. Rubin, What Price Safer Water? Presentation at Annual Conference of National Association of Regulatory Utility Commissioners, Atlanta, GA. 2003.
- George M. Aman, III, Jeffrey P. Garton, Eric Petersen, and Scott J. Rubin, Challenges and Opportunities for Improving Water Supply Institutional Arrangements, *Water Law Conference*, Pennsylvania Bar Institute, Mechanicsburg, PA. 2004.
- Scott J. Rubin, Serving Low-Income Water Customers. Presentation at American Water Works Association Annual Conference, Orlando, FL. 2004.
- Scott J. Rubin, Thinking Outside the Bill: Serving Low-Income Water Customers. Presentation at National League of Cities Annual Congress of Cities, Indianapolis, IN. 2004.
- Scott J. Rubin, Buying and Selling a Water System Ratemaking Implications, *Pennsylvania Public Utility Law Conference*, Pennsylvania Bar Institute, Harrisburg, PA. 2005.
- Scott J. Rubin, *Thinking Outside the Bill: A Utility Manager's Guide to Assisting Low-Income Water Customers*, American Water Works Association. 2005.
- Scott J. Rubin, "Census Data Shed Light on US Water and Wastewater Costs," *Journal American Water Works Association*, Vol. 97, No. 4 (April 2005), pages 99-110.
- Scott J. Rubin, Review of U.S. Environmental Protection Agency Notice Concerning Revision of National-Level Affordability Methodology, National Rural Water Association. 2006.

Testimony as an Expert Witness

- Pa. Public Utility Commission v. Pennsylvania Gas and Water Co. Water Division, Pa. Public Utility Commission, Docket R-00922404. 1992. Concerning rate design, on behalf of the Pa. Office of Consumer Advocate.
- Pa. Public Utility Commission v. Shenango Valley Water Co., Pa. Public Utility Commission, Docket R-00922420. 1992. Concerning cost allocation, on behalf of the Pa. Office of Consumer Advocate
- Pa. Public Utility Commission v. Pennsylvania Gas and Water Co. Water Division, Pa. Public Utility Commission, Docket R-00922482. 1993. Concerning rate design, on behalf of the Pa. Office of Consumer Advocate
- Pa. Public Utility Commission v. Colony Water Co., Pa. Public Utility Commission, DocketR-00922375. 1993. Concerning rate design, on behalf of the Pa. Office of Consumer Advocate
- Pa. Public Utility Commission v. Dauphin Consolidated Water Supply Co. and General Waterworks of Pennsylvania, Inc., Pa. Public Utility Commission, Docket R-00932604. 1993. Concerning rate design and cost of service, on behalf of the Pa. Office of Consumer Advocate
- West Penn Power Co. v. State Tax Department of West Virginia, Circuit Court of Kanawha County, West Virginia, Civil Action No. 89-C-3056. 1993. Concerning regulatory policy and the effects of a taxation statute on out-of-state utility ratepayers, on behalf of the Pa. Office of Consumer Advocate

- Pa. Public Utility Commission v. Pennsylvania Gas and Water Co. Water Division, Pa. Public Utility Commission, Docket R-00932667. 1993. Concerning rate design and affordability of service, on behalf of the Pa. Office of Consumer Advocate
- Pa. Public Utility Commission v. National Utilities, Inc., Pa. Public Utility Commission, DocketR-00932828. 1994. Concerning rate design, on behalf of the Pa. Office of Consumer Advocate
- An Investigation of the Sources of Supply and Future Demand of Kentucky-American Water Company, Ky. Public Service Commission, Case No. 93-434. 1994. Concerning supply and demand planning, on behalf of the Kentucky Office of Attorney General, Utility and Rate Intervention Division.
- The Petition on Behalf of Gordon's Corner Water Company for an Increase in Rates, New Jersey Board of Public Utilities, Docket No. WR94020037. 1994. Concerning revenue requirements and rate design, on behalf of the New Jersey Division of Ratepayer Advocate.
- Re Consumers Maine Water Company Request for Approval of Contracts with Consumers Water Company and with Ohio Water Service Company, Me. Public Utilities Commission, Docket No. 94-352. 1994. Concerning affiliated interest agreements, on behalf of the Maine Public Advocate.
- In the Matter of the Application of Potomac Electric Power Company for Approval of its Third Least-Cost Plan, D.C. Public Service Commission, Formal Case No. 917, Phase II. 1995. Concerning Clean Air Act implementation and environmental externalities, on behalf of the District of Columbia Office of the People's Counsel.
- In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of the Dayton Power and Light Company and Related Matters, Ohio Public Utilities Commission, Case No. 94-105-EL-EFC. 1995. Concerning Clean Air Act implementation (case settled before testimony was filed), on behalf of the Office of the Ohio Consumers' Counsel.
- Kennebec Water District Proposed Increase in Rates, Maine Public Utilities Commission, Docket No. 95-091. 1995. Concerning the reasonableness of planning decisions and the relationship between a publicly owned water district and a very large industrial customer, on behalf of the Maine Public Advocate.
- Winter Harbor Water Company, Proposed Schedule Revisions to Introduce a Readiness-to-Serve Charge, Maine Public Utilities Commission, Docket No. 95-271. 1995 and 1996. Concerning standards for, and the reasonableness of, imposing a readiness to serve charge and/or exit fee on the customers of a small investor-owned water utility, on behalf of the Maine Public Advocate.
- In the Matter of the 1995 Long-Term Electric Forecast Report of the Cincinnati Gas & Electric Company, Public Utilities Commission of Ohio, Case No. 95-203-EL-FOR, and In the Matter of the Two-Year Review of the Cincinnati Gas & Electric Company's Environmental Compliance Plan Pursuant to Section 4913.05, Revised Cost, Case No. 95-747-EL-ECP. 1996. Concerning the reasonableness of the utility's long-range supply and demand-management plans, the reasonableness of its plan for complying with the Clean Air Act Amendments of 1990, and discussing methods to ensure the provision of utility service to low-income customers, on behalf of the Office of the Ohio Consumers' Counsel..

- In the Matter of Notice of the Adjustment of the Rates of Kentucky-American Water Company, Kentucky Public Service Commission, Case No. 95-554. 1996. Concerning rate design, cost of service, and sales forecast issues, on behalf of the Kentucky Office of Attorney General.
- In the Matter of the Application of Citizens Utilities Company for a Hearing to Determine the Fair Value of its Properties for Ratemaking Purposes, to Fix a Just and Reasonable Rate of Return Thereon, and to Approve Rate Schedules Designed to Provide such Rate of Return, Arizona Corporation Commission, Docket Nos. E-1032-95-417, et al. 1996. Concerning rate design, cost of service, and the price elasticity of water demand, on behalf of the Arizona Residential Utility Consumer Office.
- Cochrane v. Bangor Hydro-Electric Company, Maine Public Utilities Commission, Docket No. 96-053. 1996. Concerning regulatory requirements for an electric utility to engage in unregulated business enterprises, on behalf of the Maine Public Advocate.
- In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of Monongahela Power Company and Related Matters, Public Utilities Commission of Ohio, Case No. 96-106-EL-EFC. 1996. Concerning the costs and procedures associated with the implementation of the Clean Air Act Amendments of 1990, on behalf of the Ohio Consumers' Counsel.
- In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of Cleveland Electric Illuminating Company and Toledo Edison Company and Related Matters, Public Utilities Commission of Ohio, Case Nos. 96-107-EL-EFC and 96-108-EL-EFC. 1996. Concerning the costs and procedures associated with the implementation of the Clean Air Act Amendments of 1990, on behalf of the Ohio Consumers' Counsel.
- In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of Ohio Power Company and Columbus Southern Power Company and Related Matters, Public Utilities Commission of Ohio, Case Nos. 96-101-EL-EFC and 96-102-EL-EFC. 1997. Concerning the costs and procedures associated with the implementation of the Clean Air Act Amendments of 1990, on behalf of the Ohio Consumers' Counsel.
- An Investigation of the Sources of Supply and Future Demand of Kentucky-American Water Company (Phase II), Kentucky Public Service Commission, Docket No. 93-434. 1997. Concerning supply and demand planning, on behalf of the Kentucky Office of Attorney General, Public Service Litigation Branch.
- In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of Cincinnati Gas and Electric Co. and Related Matters, Public Utilities Commission of Ohio, Case No. 96-103-EL-EFC. 1997. Concerning the costs and procedures associated with the implementation of the Clean Air Act Amendments of 1990, on behalf of the Ohio Consumers' Counsel.
- Bangor Hydro-Electric Company Petition for Temporary Rate Increase, Maine Public Utilities Commission, Docket No. 97-201. 1997. Concerning the reasonableness of granting an electric utility's request for emergency rate relief, and related issues, on behalf of the Maine Public Advocate.

- Testimony concerning H.B. 1068 Relating to Restructuring of the Natural Gas Utility Industry, Consumer Affairs Committee, Pennsylvania House of Representatives. 1997. Concerning the provisions of proposed legislation to restructure the natural gas utility industry in Pennsylvania, on behalf of the Pennsylvania AFL-CIO Gas Utility Caucus.
- In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of Cleveland Electric Illuminating Company and Toledo Edison Company and Related Matters, Public Utilities Commission of Ohio, Case Nos. 97-107-EL-EFC and 97-108-EL-EFC. 1997. Concerning the costs and procedures associated with the implementation of the Clean Air Act Amendments of 1990, on behalf of the Ohio Consumers' Counsel.
- In the Matter of the Petition of Valley Road Sewerage Company for a Revision in Rates and Charges for Water Service, New Jersey Board of Public Utilities, Docket No. WR92080846J. 1997. Concerning the revenue requirements and rate design for a wastewater treatment utility, on behalf of the New Jersey Division of Ratepayer Advocate.
- Bangor Gas Company, L.L.C., Petition for Approval to Furnish Gas Service in the State of Maine, Maine Public Utilities Commission, Docket No. 97-795. 1998. Concerning the standards and public policy concerns involved in issuing a certificate of public convenience and necessity for a new natural gas utility, and related ratemaking issues, on behalf of the Maine Public Advocate.
- In the Matter of the Investigation on Motion of the Commission into the Adequacy of the Public Utility Water Service Provided by Tidewater Utilities, Inc., in Areas in Southern New Castle County, Delaware, Delaware Public Service Commission, Docket No. 309-97. 1998.

 Concerning the standards for the provision of efficient, sufficient, and adequate water service, and the application of those standards to a water utility, on behalf of the Delaware Division of the Public Advocate.
- In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of Cincinnati Gas and Electric Co. and Related Matters, Public Utilities Commission of Ohio, Case No. 97-103-EL-EFC. 1998. Concerning fuel-related transactions with affiliated companies and the appropriate ratemaking treatment and regulatory safeguards involving such transactions, on behalf of the Ohio Consumers' Counsel.
- Olde Port Mariner Fleet, Inc. Complaint Regarding Casco Bay Island Transit District's Tour and Charter Service, Maine Public Utilities Commission, Docket No. 98-161. 1998. Concerning the standards and requirements for allocating costs and separating operations between regulated and unregulated operations of a transportation utility, on behalf of the Maine Public Advocate and Olde Port Mariner Fleet, Inc.
- Central Maine Power Company Investigation of Stranded Costs, Transmission and Distribution Utility Revenue Requirements, and Rate Design, Maine Public Utilities Commission, Docket No. 97-580. 1998. Concerning the treatment of existing rate discounts when designing rates for a transmission and distribution electric utility, on behalf of the Maine Public Advocate.
- Pa. Public Utility Commission v. Manufacturers Water Company, Pennsylvania Public Utility Commission, Docket No. R-00984275. 1998. Concerning rate design on behalf of the Manufacturers Water Industrial Users.

- In the Matter of Petition of Pennsgrove Water Supply Company for an Increase in Rates for Water Service, New Jersey Board of Public Utilities, Docket No. WR98030147. 1998. Concerning the revenue requirements, level of affiliated charges, and rate design for a water utility, on behalf of the New Jersey Division of Ratepayer Advocate.
- In the Matter of Petition of Seaview Water Company for an Increase in Rates for Water Service, New Jersey Board of Public Utilities, Docket No. WR98040193. 1999. Concerning the revenue requirements and rate design for a water utility, on behalf of the New Jersey Division of Ratepayer Advocate.
- In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of Ohio Power Company and Columbus Southern Power Company and Related Matters, Public Utilities Commission of Ohio, Case Nos. 98-101-EL-EFC and 98-102-EL-EFC. 1999. Concerning the costs and procedures associated with the implementation of the Clean Air Act Amendments of 1990, on behalf of the Ohio Consumers' Counsel.
- In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of Dayton Power and Light Company and Related Matters, Public Utilities Commission of Ohio, Case No. 98-105-EL-EFC. 1999. Concerning the costs and procedures associated with the implementation of the Clean Air Act Amendments of 1990, on behalf of the Ohio Consumers' Counsel.
- In the Matter of the Regulation of the Electric Fuel Component Contained within the Rate Schedules of Monongahela Power Company and Related Matters, Public Utilities Commission of Ohio, Case No. 99-106-EL-EFC. 1999. Concerning the costs and procedures associated with the implementation of the Cle an Air Act Amendments of 1990, on behalf of the Ohio Consumers' Counsel.
- County of Suffolk, et al. v. Long Island Lighting Company, et al., U.S. District Court for the Eastern District of New York, Case No. 87-CV-0646. 2000. Submitted two affidavits concerning the calculation and collection of court-ordered refunds to utility customers, on behalf of counsel for the plaintiffs.
- Northern Utilities, Inc., Petition for Waivers from Chapter 820, Maine Public Utilities Commission, Docket No. 99-254. 2000. Concerning the standards and requirements for defining and separating a natural gas utility's core and non-core business functions, on behalf of the Maine Public Advocate.
- Notice of Adjustment of the Rates of Kentucky-American Water Company, Kentucky Public Service Commission, Case No. 2000-120. 2000. Concerning the appropriate methods for allocating costs and designing rates, on behalf of the Kentucky Office of Attorney General.
- In the Matter of the Petition of Gordon's Corner Water Company for an Increase in Rates and Charges for Water Service, New Jersey Board of Public Utilities, Docket No. WR00050304. 2000. Concerning the revenue requirements and rate design for a water utility, on behalf of the New Jersey Division of Ratepayer Advocate.
- Testimony concerning Arsenic in Drinking Water: An Update on the Science, Benefits, and Costs, Committee on Science, United States House of Representatives. 2001. Concerning the effects

- on low-income households and small communities from a more stringent regulation of arsenic in drinking water.
- In the Matter of the Application of The Cincinnati Gas & Electric Company for an Increase in Gas Rates in its Service Territory, Public Utilities Commission of Ohio, Case No. 01-1228-GA-AIR, et al. 2002. Concerning the need for and structure of a special rider and alternative form of regulation for an accelerated main replacement program, on behalf of the Ohio Consumers' Counsel.
- Pennsylvania State Treasurer's Hearing on Enron and Corporate Governance Issues. 2002. Concerning Enron's role in Pennsylvania's electricity market and related issues, on behalf of the Pennsylvania AFL-CIO.
- An Investigation into the Feasibility and Advisability of Kentucky-American Water Company's Proposed Solution to its Water Supply Deficit, Kentucky Public Service Commission, Case No. 2001-00117. 2002. Concerning water supply planning, regulatory oversight, and related issue, on behalf of the Kentucky Office of Attorney General.
- Joint Application of Pennsylvania-American Water Company and Thames Water Aqua Holdings GmbH, Pennsylvania Public Utility Commission, Docket Nos. A-212285F0096 and A-230073F0004. 2002. Concerning the risks and benefits associated with the proposed acquisition of a water utility, on behalf of the Pennsylvania Office of Consumer Advocate.
- Application for Approval of the Transfer of Control of Kentucky-American Water Company to RWE AG and Thames Water Aqua Holdings GmbH, Kentucky Public Service Commission, Case No. 2002-00018. 2002. Concerning the risks and benefits associated with the proposed acquisition of a water utility, on behalf of the Kentucky Office of Attorney General.
- Joint Petition for the Consent and Approval of the Acquisition of the Outstanding Common Stock of American Water Works Company, Inc., the Parent Company and Controlling Shareholder of West Virginia-American Water Company, West Virginia Public Service Commission, Case No. 01-1691-W-PC. 2002. Concerning the risks and benefits associated with the proposed acquisition of a water utility, on behalf of the Consumer Advocate Division of the West Virginia Public Service Commission.
- Joint Petition of New Jersey-American Water Company, Inc. and Thames Water Aqua Holdings GmbH for Approval of Change in Control of New Jersey-American Water Company, Inc., New Jersey Board of Public Utilities, Docket No. WM01120833. 2002. Concerning the risks and benefits associated with the proposed acquisition of a water utility, on behalf of the New Jersey Division of Ratepayer Advocate.
- *Illinois-American Water Company, Proposed General Increase in Water Rates*, Illinois Commerce Commission, Docket No. 02-0690. 2003. Concerning rate design and cost of service issues, on behalf of the Illinois Office of the Attorney General.
- Pennsylvania Public Utility Commission v. Pennsylvania-American Water Company, Pennsylvania Public Utility Commission, Docket No. R-00038304. 2003. Concerning rate design and cost of service issues, on behalf of the Pennsylvania Office of Consumer Advocate.

- West Virginia-American Water Company, West Virginia Public Service Commission, Case No. 03-0353-W-42T. 2003. Concerning affordability, rate design, and cost of service issues, on behalf of the West Virginia Consumer Advocate Division.
- Petition of Seabrook Water Corp. for an Increase in Rates and Charges for Water Service, New Jersey Board of Public Utilities, Docket No. WR3010054. 2003. Concerning revenue requirements, rate design, prudence, and regulatory policy, on behalf of the New Jersey Division of Ratepayer Advocate.
- Chesapeake Ranch Water Co. v. Board of Commissioners of Calvert County, U.S. District Court for Southern District of Maryland, Civil Action No. 8:03-cv-02527-AW. 2004. Submitted expert report concerning the expected level of rates under various options for serving new commercial development, on behalf of the plaintiff.
- Testimony concerning Lead in Drinking Water, Committee on Government Reform, United States House of Representatives. 2004. Concerning the trade-offs faced by low-income households when drinking water costs increase, including an analysis of H.R. 4268.
- West Virginia-American Water Company, West Virginia Public Service Commission, Case No. 04-0373-W-42T. 2004. Concerning affordability and rate comparisons, on behalf of the West Virginia Consumer Advocate Division.
- West Virginia-American Water Company, West Virginia Public Service Commission, Case No. 04-0358-W-PC. 2004. Concerning costs, benefits, and risks associated with a wholesale water sales contract, on behalf of the West Virginia Consumer Advocate Division.
- *Kentucky-American Water Company*, Kentucky Public Service Commission, Case No. 2004-00103. 2004. Concerning rate design and tariff issues, on behalf of the Kentucky Office of Attorney General.
- *New Landing Utility, Inc.*, Illinois Commerce Commission, Docket No. 04-0610. 2005. Concerning the adequacy of service provided by, and standards of performance for, a water and wastewater utility, on behalf of the Illinois Office of Attorney General.
- People of the State of Illinois v. New Landing Utility, Inc., Circuit Court of the 15th Judicial District, Ogle County, Illinois, No. 00-CH-97. 2005. Concerning the standards of performance for a water and wastewater utility, including whether a receiver should be appointed to manage the utility's operations, on behalf of the Illinois Office of Attorney General.
- Hope Gas, Inc. d/b/a Dominion Hope, West Virginia Public Service Commission, Case No. 05-0304-G-42T. 2005. Concerning the utility's relationships with affiliated companies, including an appropriate level of revenues and expenses associated with services provided to and received from affiliates, on behalf of the West Virginia Consumer Advocate Division.
- Monongahela Power Co. and The Potomac Edison Co., Case Nos. 05-0402-E-CN and 05-0750-E-PC. 2005. Concerning review of a plan to finance the construction of pollution control facilities and related issues, on behalf of the West Virginia Consumer Advocate Division.
- Joint Application of Duke Energy Corp., et al., for Approval of a Transfer and Acquisition of Control, Case No. 2005-00228. 2005. Concerning the risks and benefits associated with the

- proposed acquisition of an energy utility, on behalf of the Kentucky Office of the Attorney General.
- Commonwealth Edison Company proposed general revision of rates, restructuring and price unbundling of bundled service rates, and revision of other terms and conditions of service, Docket No. 05-0597. 2005. Concerning rate design and cost of service, on behalf of the Illinois Office of Attorney General.
- Pennsylvania Public Utility Commission v. Aqua Pennsylvania, Inc., Docket No. R-00051030. 2006. Concerning rate design and cost of service, on behalf of the Pennsylvania Office of Consumer Advocate.

Rate Comparison - AmerenCILCO

		Existing Bundled	Fictitious Hybrid	Proposed Unbundled		
	Units	Rates	Rates	Rates	Source	
Customer charge	\$/month	3.52	3.78	6.69	(a)	
Service access fee	\$/month		2.28		(a)	
Meter charge	\$/month		2.17	4.24	(a)	
Energy charge - summer	¢/kwh	7.4790			(a)	
Energy charge - winter first 930 kwh	¢/kwh	6.6180			(a)	
Energy charge - winter all over 930 kwh	¢/kwh	3.5210			(a)	
Distribution charge	¢/kwh		1.8400	2.7640	(a)	
Transmission charge	¢/kwh		0.1844	0.1844	(b)	
Supply charge - summer	¢/kwh		6.7185	6.7185	(c)	
Supply charge - winter first 800 kwh	¢/kwh		5.8017	5.8017	(c)	
Supply charge - winter all over 800 kwh	¢/kwh		4.1742	4.1742	(c)	

- (a) Present and proposed tariffs (b) Ameren response to AG 5.2
- (c) Ameren response to AG 2.7

AmerenCILCO, Docket No. 06-0070 AmerenCIPS, Docket No. 06-0071 AmerenIP, Docket No. 06-0072

Rate Comparison - AmerenCIPS

		Existing Bundled	Fictitious Hybrid	Proposed Unbundled	
	Units	Rates	Rates	Rates	Source
Customer charge	\$/month	4.75	7.03	6.69	(a)
Meter charge	\$/month		2.57	4.24	(a)
Energy charge - summer	¢/kwh	8.1760			(a)
Energy charge - winter non-heating	¢/kwh	6.9880			(a)
Energy charge - winter heating first 400 kwh	¢/kwh	6.9880			(a)
Energy charge - winter heating next 400 kwh	¢/kwh	4.9740			(a)
Energy charge - winter heating all over 800 kwh	¢/kwh	3.3500			(a)
Distribution charge	¢/kwh		1.9800	1.8580	(a)
Transmission charge	¢/kwh		0.1812	0.1812	(b)
Supply charge - summer	¢/kwh		6.7185	6.7185	(c)
Supply charge - winter first 800 kwh	¢/kwh		5.8017	5.8017	(c)
Supply charge - winter all over 800 kwh	¢/kwh		4.1742	4.1742	(c)

- (a) Present and proposed tariffs
- (b) Ameren response to AG 5.2
- (c) Ameren response to AG 2.7

AmerenCILCO, Docket No. 06-0070 AmerenCIPS, Docket No. 06-0071 AmerenIP, Docket No. 06-0072

Rate Comparison - AmerenCIPS-ME

		Existing Bundled	Fictitious Hybrid	Proposed Unbundled		
	Units	Rates	Rates	Rates	Source	
Customer charge	\$/month	4.85	7.03	6.69	(a)	
Meter charge	\$/month		2.57	4.24	(a)	
Energy charge - summer	¢/kwh	9.2210			(a)	
Energy charge - winter first 600 kwh	¢/kwh	6.4280			(a)	
Energy charge - winter all over 600 kwh	¢/kwh	2.7230			(a)	
Distribution charge	¢/kwh		1.9800	1.8580	(a)	
Transmission charge	¢/kwh		0.1812	0.1812	(b)	
Supply charge - summer	¢/kwh		6.7185	6.7185	(c)	
Supply charge - winter first 800 kwh	¢/kwh		5.8017	5.8017	(c)	
Supply charge - winter all over 800 kwh	¢/kwh		4.1742	4.1742	(c)	

- (a) Present and proposed tariffs
- (b) Ameren response to AG 5.2
- (c) Ameren response to AG 2.7

Rate Comparison - AmerenIP

		Existing Bundled	Fictitious Hybrid	Proposed Unbundled	
	Units	Rates	Rates	Rates	Source
Customer charge - single family	\$/month	7.96	7.96	6.69	(a)
Customer charge - multi-family	\$/month	5.96	5.96	6.69	(a)
Meter charge	\$/month			4.24	(a)
Energy charge - summer first 300 kwh	¢/kwh	8.3150			(a)
Energy charge - summer all over 300 kwh	¢/kwh	7.5150			(a)
Energy charge - winter first 300 kwh	¢/kwh	7.7070			(a)
Energy charge - winter all over 300 kwh	¢/kwh	5.9470			(a)
Energy charge - winter space heating	¢/kwh	2.4990			(a)
Distribution charge	¢/kwh		1.7730	2.7650	(a)
Transmission charge	¢/kwh		0.2217	0.2217	(b)
Supply charge - summer	¢/kwh		6.7185	6.7185	(c)
Supply charge - winter first 800 kwh	¢/kwh		5.8017	5.8017	(c)
Supply charge - winter all over 800 kwh	¢/kwh		4.1742	4.1742	(c)

- (a) Present and proposed tariffs
- (b) Ameren response to AG 5.2
- (c) Ameren response to AG 2.7

AmerenCILCO, Docket No. 06-0070 AmerenCIPS, Docket No. 06-0071 AmerenIP, Docket No. 06-0072

Bill for Median Residential Customer - AmerenCILCO

		Existing Bundled Rates			Fic	Fictitious Hybrid Rates			Proposed Rebundled Rates		
	Median										
	Consumption	Fixed	Consumption	Total	Fixed	Consumption	Total	Fixed	Consumption	Total	
	(kwh)	Charges	Charges	Bill	Charges	Charges	Bill	Charges	Charges	Bill	
January	850	3.52	56.25	59.77	8.23	65.71	73.94	10.93	73.56	84.49	
February	750	3.52	49.64	53.16	8.23	58.70	66.93	10.93	65.63	76.56	
March	650	3.52	43.02	46.54	8.23	50.87	59.10	10.93	56.88	67.81	
April	550	3.52	36.40	39.92	8.23	43.04	51.27	10.93	48.13	59.06	
May	550	3.52	36.40	39.92	8.23	43.04	51.27	10.93	48.13	59.06	
June	750	3.52	56.09	59.61	8.23	65.57	73.80	10.93	72.50	83.43	
July	850	3.52	63.57	67.09	8.23	74.31	82.54	10.93	82.17	93.10	
August	850	3.52	63.57	67.09	8.23	74.31	82.54	10.93	82.17	93.10	
September	750	3.52	56.09	59.61	8.23	65.57	73.80	10.93	72.50	83.43	
October	650	3.52	43.02	46.54	8.23	50.87	59.10	10.93	56.88	67.81	
November	550	3.52	36.40	39.92	8.23	43.04	51.27	10.93	48.13	59.06	
December	750	3.52	49.64	53.16	8.23	58.70	66.93	10.93	65.63	76.56	
Total	8,500	42.24	590.09	632.33	98.76	693.73	792.49	131.16	772.31	903.47	

Proposed Rebundled Annual Bill: Percent Increase Over Existing Bundled Bill =

Bill for Median Residential Customer - AmerenCIPS

		Exis	Existing Bundled Rates			Fictitious Hybrid Rates			Proposed Rebundled Rates		
	Median										
	Consumption	Fixed	Consumption	Total	Fixed	Consumption	Total	Fixed	Consumption	Total	
	(kwh)	Charges	Charges	Bill	Charges	Charges	Bill	Charges	Charges	Bill	
January	850	4.75	59.40	64.15	9.60	66.87	76.47	10.93	65.83	76.76	
February	750	4.75	52.41	57.16	9.60	59.72	69.32	10.93	58.81	69.74	
March	650	4.75	45.42	50.17	9.60	51.76	61.36	10.93	50.97	61.90	
April	750	4.75	52.41	57.16	9.60	59.72	69.32	10.93	58.81	69.74	
May	550	4.75	38.43	43.18	9.60	43.80	53.40	10.93	43.12	54.05	
June	750	4.75	61.32	66.07	9.60	66.60	76.20	10.93	65.68	76.61	
July	850	4.75	69.50	74.25	9.60	75.48	85.08	10.93	74.44	85.37	
August	850	4.75	69.50	74.25	9.60	75.48	85.08	10.93	74.44	85.37	
September	750	4.75	61.32	66.07	9.60	66.60	76.20	10.93	65.68	76.61	
October	650	4.75	45.42	50.17	9.60	51.76	61.36	10.93	50.97	61.90	
November	550	4.75	38.43	43.18	9.60	43.80	53.40	10.93	43.12	54.05	
December	750	4.75	52.41	57.16	9.60	59.72	69.32	10.93	58.81	69.74	
Total	8,700	57.00	645.97	702.97	115.20	721.31	836.51	131.16	710.68	841.84	

Bill for Median Residential Customer - AmerenCIPS-ME

		Exis	Existing Bundled Rates			Fictitious Hybrid Rates			Proposed Rebundled Rates		
	Median										
	Consumption	Fixed	Consumption	Total	Fixed	Consumption	Total	Fixed	Consumption	Total	
	(kwh)	Charges	Charges	Bill	Charges	Charges	Bill	Charges	Charges	Bill	
January	850	4.85	45.38	50.23	9.60	66.87	76.47	10.93	65.83	76.76	
February	750	4.85	42.65	47.50	9.60	59.72	69.32	10.93	58.81	69.74	
March	650	4.85	39.93	44.78	9.60	51.76	61.36	10.93	50.97	61.90	
April	650	4.85	39.93	44.78	9.60	51.76	61.36	10.93	50.97	61.90	
May	650	4.85	39.93	44.78	9.60	51.76	61.36	10.93	50.97	61.90	
June	950	4.85	87.60	92.45	9.60	84.36	93.96	10.93	83.20	94.13	
July	1,125	4.85	103.74	108.59	9.60	99.90	109.50	10.93	98.52	109.45	
August	1,125	4.85	103.74	108.59	9.60	99.90	109.50	10.93	98.52	109.45	
September	950	4.85	87.60	92.45	9.60	84.36	93.96	10.93	83.20	94.13	
October	750	4.85	42.65	47.50	9.60	59.72	69.32	10.93	58.81	69.74	
November	650	4.85	39.93	44.78	9.60	51.76	61.36	10.93	50.97	61.90	
December	750	4.85	42.65	47.50	9.60	59.72	69.32	10.93	58.81	69.74	
Total	9,850	58.20	715.73	773.93	115.20	821.59	936.79	131.16	809.58	940.74	

Bill for Median Residential Customer - AmerenIP

		Exis	sting Bundled Ra	tes	Fictitious Hybrid Rates			Proposed Rebundled Rates		
	Median									
	Consumption	Fixed	Consumption	Total	Fixed	Consumption	Total	Fixed	Consumption	Total
	(kwh)	Charges	Charges	Bill	Charges	Charges	Bill	Charges	Charges	Bill
January	750	7.96	49.88	57.84	7.96	65.46	73.42	17.62	73.89	91.51
February	650	7.96	43.94	51.90	7.96	50.68	58.64	17.62	57.12	74.74
March	550	7.96	37.99	45.95	7.96	42.88	50.84	17.62	48.34	65.96
April	550	7.96	37.99	45.95	7.96	42.88	50.84	17.62	48.34	65.96
May	550	7.96	37.99	45.95	7.96	42.88	50.84	17.62	48.34	65.96
June	650	7.96	51.25	59.21	7.96	56.64	64.60	17.62	63.08	80.70
July	850	7.96	66.28	74.24	7.96	74.06	82.02	17.62	82.49	100.11
August	850	7.96	66.28	74.24	7.96	74.06	82.02	17.62	82.49	100.11
September	750	7.96	58.76	66.72	7.96	65.35	73.31	17.62	72.79	90.41
October	650	7.96	43.94	51.90	7.96	50.68	58.64	17.62	57.12	74.74
November	550	7.96	37.99	45.95	7.96	42.88	50.84	17.62	48.34	65.96
December	750	7.96	49.88	57.84	7.96	58.47	66.43	17.62	65.91	83.53
Total	8,100	95.52	582.17	677.69	95.52	666.92	762.44	211.44	748.25	959.69

Bill for Low-Use Residential Customer - AmerenCILCO

		Exis	sting Bundled Rat	tes	Fictitious Hybrid Rates			Proposed Rebundled Rates		
	Low-Use									
	Consumption	Fixed	Consumption	Total	Fixed	Consumption	Total	Fixed	Consumption	Total
	(kwh)	Charges	Charges	Bill	Charges	Charges	Bill	Charges	Charges	Bill
January	400	3.52	26.47	29.99	8.23	31.30	39.53	10.93	35.00	45.93
February	400	3.52	26.47	29.99	8.23	31.30	39.53	10.93	35.00	45.93
March	400	3.52	26.47	29.99	8.23	31.30	39.53	10.93	35.00	45.93
April	400	3.52	26.47	29.99	8.23	31.30	39.53	10.93	35.00	45.93
May	400	3.52	26.47	29.99	8.23	31.30	39.53	10.93	35.00	45.93
June	600	3.52	44.87	48.39	8.23	52.46	60.69	10.93	58.00	68.93
July	600	3.52	44.87	48.39	8.23	52.46	60.69	10.93	58.00	68.93
August	600	3.52	44.87	48.39	8.23	52.46	60.69	10.93	58.00	68.93
September	600	3.52	44.87	48.39	8.23	52.46	60.69	10.93	58.00	68.93
October	400	3.52	26.47	29.99	8.23	31.30	39.53	10.93	35.00	45.93
November	400	3.52	26.47	29.99	8.23	31.30	39.53	10.93	35.00	45.93
December	400	3.52	26.47	29.99	8.23	31.30	39.53	10.93	35.00	45.93
Total	5,600	42.24	391.24	433.48	98.76	460.24	559.00	131.16	512.00	643.16

Bill for Low-Use Residential Customer - AmerenCIPS

		Exis	Existing Bundled Rates			Fictitious Hybrid Rates			Proposed Rebundled Rates		
	Low-Use										
	Consumption	Fixed	Consumption	Total	Fixed	Consumption	Total	Fixed	Consumption	Total	
	(kwh)	Charges	Charges	Bill	Charges	Charges	Bill	Charges	Charges	Bill	
January	400	4.75	27.95	32.70	9.60	31.85	41.45	10.93	31.36	42.29	
February	400	4.75	27.95	32.70	9.60	31.85	41.45	10.93	31.36	42.29	
March	400	4.75	27.95	32.70	9.60	31.85	41.45	10.93	31.36	42.29	
April	400	4.75	27.95	32.70	9.60	31.85	41.45	10.93	31.36	42.29	
May	400	4.75	27.95	32.70	9.60	31.85	41.45	10.93	31.36	42.29	
June	600	4.75	49.06	53.81	9.60	53.28	62.88	10.93	52.55	63.48	
July	600	4.75	49.06	53.81	9.60	53.28	62.88	10.93	52.55	63.48	
August	600	4.75	49.06	53.81	9.60	53.28	62.88	10.93	52.55	63.48	
September	600	4.75	49.06	53.81	9.60	53.28	62.88	10.93	52.55	63.48	
October	400	4.75	27.95	32.70	9.60	31.85	41.45	10.93	31.36	42.29	
November	400	4.75	27.95	32.70	9.60	31.85	41.45	10.93	31.36	42.29	
December	400	4.75	27.95	32.70	9.60	31.85	41.45	10.93	31.36	42.29	
Total	5,600	57.00	419.84	476.84	115.20	467.92	583.12	131.16	461.08	592.24	

Bill for Low-Use Residential Customer - AmerenCIPS-ME

		Exis	Existing Bundled Rates			Fictitious Hybrid Rates			Proposed Rebundled Rates		
	Low-Use										
	Consumption	Fixed	Consumption	Total	Fixed	Consumption	Total	Fixed	Consumption	Total	
	(kwh)	Charges	Charges	Bill	Charges	Charges	Bill	Charges	Charges	Bill	
January	400	4.85	25.71	30.56	9.60	31.85	41.45	10.93	31.36	42.29	
February	400	4.85	25.71	30.56	9.60	31.85	41.45	10.93	31.36	42.29	
March	400	4.85	25.71	30.56	9.60	31.85	41.45	10.93	31.36	42.29	
April	400	4.85	25.71	30.56	9.60	31.85	41.45	10.93	31.36	42.29	
May	400	4.85	25.71	30.56	9.60	31.85	41.45	10.93	31.36	42.29	
June	600	4.85	55.33	60.18	9.60	53.28	62.88	10.93	52.55	63.48	
July	600	4.85	55.33	60.18	9.60	53.28	62.88	10.93	52.55	63.48	
August	600	4.85	55.33	60.18	9.60	53.28	62.88	10.93	52.55	63.48	
September	600	4.85	55.33	60.18	9.60	53.28	62.88	10.93	52.55	63.48	
October	400	4.85	25.71	30.56	9.60	31.85	41.45	10.93	31.36	42.29	
November	400	4.85	25.71	30.56	9.60	31.85	41.45	10.93	31.36	42.29	
December	400	4.85	25.71	30.56	9.60	31.85	41.45	10.93	31.36	42.29	
Total	5,600	58.20	427.00	485.20	115.20	467.92	583.12	131.16	461.08	592.24	

Bill for Low-Use Residential Customer - AmerenIP

		Exis	sting Bundled Ra	tes	Fictitious Hybrid Rates			Proposed Rebundled Rates		
	Low-Use									
	Consumption	Fixed	Consumption	Total	Fixed	Consumption	Total	Fixed	Consumption	Total
	(kwh)	Charges	Charges	Bill	Charges	Charges	Bill	Charges	Charges	Bill
January	400	7.96	29.07	37.03	7.96	31.19	39.15	17.62	35.15	52.77
February	400	7.96	29.07	37.03	7.96	31.19	39.15	17.62	35.15	52.77
March	400	7.96	29.07	37.03	7.96	31.19	39.15	17.62	35.15	52.77
April	400	7.96	29.07	37.03	7.96	31.19	39.15	17.62	35.15	52.77
May	400	7.96	29.07	37.03	7.96	31.19	39.15	17.62	35.15	52.77
June	600	7.96	47.49	55.45	7.96	52.28	60.24	17.62	58.23	75.85
July	600	7.96	47.49	55.45	7.96	52.28	60.24	17.62	58.23	75.85
August	600	7.96	47.49	55.45	7.96	52.28	60.24	17.62	58.23	75.85
September	600	7.96	47.49	55.45	7.96	52.28	60.24	17.62	58.23	75.85
October	400	7.96	29.07	37.03	7.96	31.19	39.15	17.62	35.15	52.77
November	400	7.96	29.07	37.03	7.96	31.19	39.15	17.62	35.15	52.77
December	400	7.96	29.07	37.03	7.96	31.19	39.15	17.62	35.15	52.77
Total	5,600	95.52	422.52	518.04	95.52	458.64	554.16	211.44	514.12	725.56

Bill for Heating Residential Customer - AmerenCILCO

		Exis	Existing Bundled Rates			Fictitious Hybrid Rates			Proposed Rebundled Rates		
	Heating										
	Consumption	Fixed	Consumption	Total	Fixed	Consumption	Total	Fixed	Consumption	Total	
	(kwh)	Charges	Charges	Bill	Charges	Charges	Bill	Charges	Charges	Bill	
January	2,000	3.52	99.22	102.74	8.23	136.99	145.22	10.93	155.47	166.40	
February	2,000	3.52	99.22	102.74	8.23	136.99	145.22	10.93	155.47	166.40	
March	1,500	3.52	81.62	85.14	8.23	106.00	114.23	10.93	119.86	130.79	
April	800	3.52	52.94	56.46	8.23	62.61	70.84	10.93	70.00	80.93	
May	800	3.52	52.94	56.46	8.23	62.61	70.84	10.93	70.00	80.93	
June	1,000	3.52	74.79	78.31	8.23	87.43	95.66	10.93	96.67	107.60	
July	1,000	3.52	74.79	78.31	8.23	87.43	95.66	10.93	96.67	107.60	
August	1,000	3.52	74.79	78.31	8.23	87.43	95.66	10.93	96.67	107.60	
September	1,000	3.52	74.79	78.31	8.23	87.43	95.66	10.93	96.67	107.60	
October	1,500	3.52	81.62	85.14	8.23	106.00	114.23	10.93	119.86	130.79	
November	2,000	3.52	99.22	102.74	8.23	136.99	145.22	10.93	155.47	166.40	
December	2,000	3.52	99.22	102.74	8.23	136.99	145.22	10.93	155.47	166.40	
Total	16,600	42.24	965.16	1,007.40	98.76	1,234.90	1,333.66	131.16	1,388.28	1,519.44	

Bill for Heating Residential Customer - AmerenCIPS

		Exis	Existing Bundled Rates			Fictitious Hybrid Rates			Proposed Rebundled Rates		
	Heating										
	Consumption	Fixed	Consumption	Total	Fixed	Consumption	Total	Fixed	Consumption	Total	
	(kwh)	Charges	Charges	Bill	Charges	Charges	Bill	Charges	Charges	Bill	
January	2,000	4.75	88.05	92.80	9.60	139.73	149.33	10.93	137.29	148.22	
February	2,000	4.75	88.05	92.80	9.60	139.73	149.33	10.93	137.29	148.22	
March	1,500	4.75	71.30	76.05	9.60	108.05	117.65	10.93	106.22	117.15	
April	800	4.75	47.85	52.60	9.60	63.70	73.30	10.93	62.73	73.66	
May	800	4.75	47.85	52.60	9.60	63.70	73.30	10.93	62.73	73.66	
June	1,000	4.75	81.76	86.51	9.60	88.80	98.40	10.93	87.58	98.51	
July	1,000	4.75	81.76	86.51	9.60	88.80	98.40	10.93	87.58	98.51	
August	1,000	4.75	81.76	86.51	9.60	88.80	98.40	10.93	87.58	98.51	
September	1,000	4.75	81.76	86.51	9.60	88.80	98.40	10.93	87.58	98.51	
October	1,500	4.75	71.30	76.05	9.60	108.05	117.65	10.93	106.22	117.15	
November	2,000	4.75	88.05	92.80	9.60	139.73	149.33	10.93	137.29	148.22	
December	2,000	4.75	88.05	92.80	9.60	139.73	149.33	10.93	137.29	148.22	
Total	16,600	57.00	917.54	974.54	115.20	1,257.62	1,372.82	131.16	1,237.38	1,368.54	

Bill for Heating Residential Customer - AmerenCIPS-ME

		Exis	Existing Bundled Rates			Fictitious Hybrid Rates			Proposed Rebundled Rates		
	Heating										
	Consumption	Fixed	Consumption	Total	Fixed	Consumption	Total	Fixed	Consumption	Total	
	(kwh)	Charges	Charges	Bill	Charges	Charges	Bill	Charges	Charges	Bill	
January	2,000	4.85	76.69	81.54	9.60	139.73	149.33	10.93	137.29	148.22	
February	2,000	4.85	76.69	81.54	9.60	139.73	149.33	10.93	137.29	148.22	
March	1,500	4.85	63.08	67.93	9.60	108.05	117.65	10.93	106.22	117.15	
April	800	4.85	44.01	48.86	9.60	63.70	73.30	10.93	62.73	73.66	
May	800	4.85	44.01	48.86	9.60	63.70	73.30	10.93	62.73	73.66	
June	1,000	4.85	92.21	97.06	9.60	88.80	98.40	10.93	87.58	98.51	
July	1,000	4.85	92.21	97.06	9.60	88.80	98.40	10.93	87.58	98.51	
August	1,000	4.85	92.21	97.06	9.60	88.80	98.40	10.93	87.58	98.51	
September	1,000	4.85	92.21	97.06	9.60	88.80	98.40	10.93	87.58	98.51	
October	1,500	4.85	63.08	67.93	9.60	108.05	117.65	10.93	106.22	117.15	
November	2,000	4.85	76.69	81.54	9.60	139.73	149.33	10.93	137.29	148.22	
December	2,000	4.85	76.69	81.54	9.60	139.73	149.33	10.93	137.29	148.22	
Total	16,600	58.20	889.78	947.98	115.20	1,257.62	1,372.82	131.16	1,237.38	1,368.54	

Bill for Heating Residential Customer - AmerenIP

		Exis	Existing Bundled Rates			Fictitious Hybrid Rates			Proposed Rebundled Rates		
	Heating										
	Consumption	Fixed	Consumption	Total	Fixed	Consumption	Total	Fixed	Consumption	Total	
	(kwh)	Charges	Charges	Bill	Charges	Charges	Bill	Charges	Charges	Bill	
January	2,000	7.96	89.74	97.70	7.96	136.40	144.36	17.62	156.24	173.86	
February	2,000	7.96	89.74	97.70	7.96	136.40	144.36	17.62	156.24	173.86	
March	1,500	7.96	77.25	85.21	7.96	105.55	113.51	17.62	120.43	138.05	
April	800	7.96	52.86	60.82	7.96	62.37	70.33	17.62	70.31	87.93	
May	800	7.96	52.86	60.82	7.96	62.37	70.33	17.62	70.31	87.93	
June	1,000	7.96	77.55	85.51	7.96	87.13	95.09	17.62	97.05	114.67	
July	1,000	7.96	77.55	85.51	7.96	87.13	95.09	17.62	97.05	114.67	
August	1,000	7.96	77.55	85.51	7.96	87.13	95.09	17.62	97.05	114.67	
September	1,000	7.96	77.55	85.51	7.96	87.13	95.09	17.62	97.05	114.67	
October	1,500	7.96	77.25	85.21	7.96	105.55	113.51	17.62	120.43	138.05	
November	2,000	7.96	89.74	97.70	7.96	136.40	144.36	17.62	156.24	173.86	
December	2,000	7.96	89.74	97.70	7.96	136.40	144.36	17.62	156.24	173.86	
Total	16,600	95.52	929.38	1,024.90	95.52	1,229.96	1,325.48	211.44	1,394.64	1,606.08	

Bill for Median Residential Customer Under Companies' Phase-in Plan - AmerenCILCO

		Exis	Existing Bundled Rates			Fictitious Hybrid Rates			Proposed Rebundled Rates		
	Median										
	Consumption	Fixed	Consumption	Total	Fixed	Consumption	Total	Fixed	Consumption	Total	
	(kwh)	Charges	Charges	Bill	Charges	Charges	Bill	Charges	Charges	Bill	
January	850	3.52	56.25	59.77	8.23	65.71	73.94	10.93	69.77	80.70	
February	750	3.52	49.64	53.16	8.23	58.70	66.93	10.93	62.28	73.21	
March	650	3.52	43.02	46.54	8.23	50.87	59.10	10.93	53.98	64.91	
April	550	3.52	36.40	39.92	8.23	43.04	51.27	10.93	45.67	56.60	
May	550	3.52	36.40	39.92	8.23	43.04	51.27	10.93	45.67	56.60	
June	750	3.52	56.09	59.61	8.23	65.57	73.80	10.93	69.16	80.09	
July	850	3.52	63.57	67.09	8.23	74.31	82.54	10.93	78.38	89.31	
August	850	3.52	63.57	67.09	8.23	74.31	82.54	10.93	78.38	89.31	
September	750	3.52	56.09	59.61	8.23	65.57	73.80	10.93	69.16	80.09	
October	650	3.52	43.02	46.54	8.23	50.87	59.10	10.93	53.98	64.91	
November	550	3.52	36.40	39.92	8.23	43.04	51.27	10.93	45.67	56.60	
December	750	3.52	49.64	53.16	8.23	58.70	66.93	10.93	62.28	73.21	
Total	8,500	42.24	590.09	632.33	98.76	693.73	792.49	131.16	734.38	865.54	

Bill for Median Residential Customer Under Companies' Phase-in Plan - AmerenIP

		Existing Bundled Rates			Fic	titious Hybrid Rat	es	Proposed Rebundled Rates		
	Median									
	Consumption	Fixed	Consumption	Total	Fixed	Consumption	Total	Fixed	Consumption	Total
	(kwh)	Charges	Charges	Bill	Charges	Charges	Bill	Charges	Charges	Bill
January	750	7.96	49.88	57.84	7.96	65.46	73.42	17.62	69.48	87.10
February	650	7.96	43.94	51.90	7.96	50.68	58.64	17.62	53.76	71.38
March	550	7.96	37.99	45.95	7.96	42.88	50.84	17.62	45.49	63.11
April	550	7.96	37.99	45.95	7.96	42.88	50.84	17.62	45.49	63.11
May	550	7.96	37.99	45.95	7.96	42.88	50.84	17.62	45.49	63.11
June	650	7.96	51.25	59.21	7.96	56.64	64.60	17.62	59.72	77.34
July	850	7.96	66.28	74.24	7.96	74.06	82.02	17.62	78.09	95.71
August	850	7.96	66.28	74.24	7.96	74.06	82.02	17.62	78.09	95.71
September	750	7.96	58.76	66.72	7.96	65.35	73.31	17.62	68.90	86.52
October	650	7.96	43.94	51.90	7.96	50.68	58.64	17.62	53.76	71.38
November	550	7.96	37.99	45.95	7.96	42.88	50.84	17.62	45.49	63.11
December	750	7.96	49.88	57.84	7.96	58.47	66.43	17.62	62.03	79.65
Total	8,100	95.52	582.17	677.69	95.52	666.92	762.44	211.44	705.79	917.23

Bill for Low-Use Residential Customer Under Companies' Phase-in Plan - AmerenCILCO

		Existing Bundled Rates			Fic	titious Hybrid Rat	es	Proposed Rebundled Rates		
	Low-Use									
	Consumption	Fixed	Consumption	Total	Fixed	Consumption	Total	Fixed	Consumption	Total
	(kwh)	Charges	Charges	Bill	Charges	Charges	Bill	Charges	Charges	Bill
January	400	3.52	26.47	29.99	8.23	31.30	39.53	10.93	33.22	44.15
February	400	3.52	26.47	29.99	8.23	31.30	39.53	10.93	33.22	44.15
March	400	3.52	26.47	29.99	8.23	31.30	39.53	10.93	33.22	44.15
April	400	3.52	26.47	29.99	8.23	31.30	39.53	10.93	33.22	44.15
May	400	3.52	26.47	29.99	8.23	31.30	39.53	10.93	33.22	44.15
June	600	3.52	44.87	48.39	8.23	52.46	60.69	10.93	55.33	66.26
July	600	3.52	44.87	48.39	8.23	52.46	60.69	10.93	55.33	66.26
August	600	3.52	44.87	48.39	8.23	52.46	60.69	10.93	55.33	66.26
September	600	3.52	44.87	48.39	8.23	52.46	60.69	10.93	55.33	66.26
October	400	3.52	26.47	29.99	8.23	31.30	39.53	10.93	33.22	44.15
November	400	3.52	26.47	29.99	8.23	31.30	39.53	10.93	33.22	44.15
December	400	3.52	26.47	29.99	8.23	31.30	39.53	10.93	33.22	44.15
Total	5,600	42.24	391.24	433.48	98.76	460.24	559.00	131.16	487.08	618.24

Bill for Low-Use Residential Customer Under Companies' Phase-in Plan - AmerenIP

		Existing Bundled Rates			Fict	titious Hybrid Rat	es	Proposed Rebundled Rates		
	Low-Use									
	Consumption	Fixed	Consumption	Total	Fixed	Consumption	Total	Fixed	Consumption	Total
	(kwh)	Charges	Charges	Bill	Charges	Charges	Bill	Charges	Charges	Bill
January	400	7.96	29.07	37.03	7.96	31.19	39.15	17.62	33.08	50.70
February	400	7.96	29.07	37.03	7.96	31.19	39.15	17.62	33.08	50.70
March	400	7.96	29.07	37.03	7.96	31.19	39.15	17.62	33.08	50.70
April	400	7.96	29.07	37.03	7.96	31.19	39.15	17.62	33.08	50.70
May	400	7.96	29.07	37.03	7.96	31.19	39.15	17.62	33.08	50.70
June	600	7.96	47.49	55.45	7.96	52.28	60.24	17.62	55.12	72.74
July	600	7.96	47.49	55.45	7.96	52.28	60.24	17.62	55.12	72.74
August	600	7.96	47.49	55.45	7.96	52.28	60.24	17.62	55.12	72.74
September	600	7.96	47.49	55.45	7.96	52.28	60.24	17.62	55.12	72.74
October	400	7.96	29.07	37.03	7.96	31.19	39.15	17.62	33.08	50.70
November	400	7.96	29.07	37.03	7.96	31.19	39.15	17.62	33.08	50.70
December	400	7.96	29.07	37.03	7.96	31.19	39.15	17.62	33.08	50.70
Total	5,600	95.52	422.52	518.04	95.52	458.64	554.16	211.44	485.12	696.56

Bill for Heating Residential Customer Under Companies' Phase-in Plan - AmerenCILCO

		Existing Bundled Rates			Fict	titious Hybrid Ra	ites	Proposed Rebundled Rates		
	Heating									
	Consumption	Fixed	Consumption	Total	Fixed	Consumption	Total	Fixed	Consumption	Total
	(kwh)	Charges	Charges	Bill	Charges	Charges	Bill	Charges	Charges	Bill
January	2,000	3.52	99.22	102.74	8.23	136.99	145.22	10.93	146.55	157.48
February	2,000	3.52	99.22	102.74	8.23	136.99	145.22	10.93	146.55	157.48
March	1,500	3.52	81.62	85.14	8.23	106.00	114.23	10.93	113.17	124.10
April	800	3.52	52.94	56.46	8.23	62.61	70.84	10.93	66.43	77.36
May	800	3.52	52.94	56.46	8.23	62.61	70.84	10.93	66.43	77.36
June	1,000	3.52	74.79	78.31	8.23	87.43	95.66	10.93	92.21	103.14
July	1,000	3.52	74.79	78.31	8.23	87.43	95.66	10.93	92.21	103.14
August	1,000	3.52	74.79	78.31	8.23	87.43	95.66	10.93	92.21	103.14
September	1,000	3.52	74.79	78.31	8.23	87.43	95.66	10.93	92.21	103.14
October	1,500	3.52	81.62	85.14	8.23	106.00	114.23	10.93	113.17	124.10
November	2,000	3.52	99.22	102.74	8.23	136.99	145.22	10.93	146.55	157.48
December	2,000	3.52	99.22	102.74	8.23	136.99	145.22	10.93	146.55	157.48
Total	16,600	42.24	965.16	1,007.40	98.76	1,234.90	1,333.66	131.16	1,314.24	1,445.40

Bill for Heating Residential Customer Under Companies' Phase-in Plan - AmerenIP

		Existing Bundled Rates			Fict	titious Hybrid Ra	ites	Proposed Rebundled Rates		
	Heating									
	Consumption	Fixed	Consumption	Total	Fixed	Consumption	Total	Fixed	Consumption	Total
	(kwh)	Charges	Charges	Bill	Charges	Charges	Bill	Charges	Charges	Bill
January	2,000	7.96	89.74	97.70	7.96	136.40	144.36	17.62	145.88	163.50
February	2,000	7.96	89.74	97.70	7.96	136.40	144.36	17.62	145.88	163.50
March	1,500	7.96	77.25	85.21	7.96	105.55	113.51	17.62	112.66	130.28
April	800	7.96	52.86	60.82	7.96	62.37	70.33	17.62	66.16	83.78
May	800	7.96	52.86	60.82	7.96	62.37	70.33	17.62	66.16	83.78
June	1,000	7.96	77.55	85.51	7.96	87.13	95.09	17.62	91.87	109.49
July	1,000	7.96	77.55	85.51	7.96	87.13	95.09	17.62	91.87	109.49
August	1,000	7.96	77.55	85.51	7.96	87.13	95.09	17.62	91.87	109.49
September	1,000	7.96	77.55	85.51	7.96	87.13	95.09	17.62	91.87	109.49
October	1,500	7.96	77.25	85.21	7.96	105.55	113.51	17.62	112.66	130.28
November	2,000	7.96	89.74	97.70	7.96	136.40	144.36	17.62	145.88	163.50
December	2,000	7.96	89.74	97.70	7.96	136.40	144.36	17.62	145.88	163.50
Total	16,600	95.52	929.38	1,024.90	95.52	1,229.96	1,325.48	211.44	1,308.64	1,520.08